

**R E M A R K S**

Reconsideration of this application, as amended, is respectfully requested.

**RE: CERTIFIED COPIES OF THE PRIORITY DOCUMENTS**

\_\_\_\_ It is again respectfully requested that the Examiner acknowledge receipt of the certified copies of the priority documents, as requested on page 13 of the Amendment filed on December 1, 2005.

**RE: CLAIMS 2, 19, 20, 22 and 24**

Claims 2, 19, 20, 22 and 24 have been listed with the rejected claims on pages 2 and 3 of the Office Action. However, the Examiner has not addressed these claims substantively.

In this connection, moreover, it is respectfully submitted that the cited references fail to disclose, teach or suggest:

(i) an abrasive plate is disposed above the track frame (claim 2); (ii) an abrasive portion comprising a plurality of alternating ridges and grooves extending along a direction crossing a traveling direction of the links (claims 19 and 22); and an abrasive portion comprising a plurality of abrasive portions having spaces therebetween (claims 20 and 24). And it is respectfully submitted that claims 2, 19, 20, 22 and 24 all

clearly patentably distinguish over the cited references, taken singly or in any combination consistent with the respective fair teachings thereof, under 35 USC 103.

RE: THE PRIOR ART REJECTION

Claims 1, 2, 5, 16 and 18-20 were rejected under 35 USC 103 as being obvious in view of the combination of USP 2,535,254 (newly cited "Attwell") and USP 6,758,145 (previously cited "Hefter"), and claims 8-11 and 21-24 were rejected under 35 USC 103 as being obvious in view of the combination of USP 3,053,334 (newly cited "Bauer"), USP 1,660,100 (previously cited "Smyth"), and Hefter. These rejections, however, are respectfully traversed.

According to the present invention as recited in independent claim 1, a crawler belt link grinding system is provided which comprises an abrasive plate positioned so as to contact a wound crawler belt to grind treads of links of the crawler belt, wherein the abrasive plate has a width that is larger than an outside width of the links and a length that is longer than one pitch of the links.

According to the present invention as recited in independent claim 8, moreover, a crawler structure is provided which comprises: a track frame; a sprocket disposed at one side of the

track frame; an idler disposed at another side of the track frame; a track roller disposed under the track frame; a carrier roller disposed on the track frame; an endless crawler belt wound between the sprocket and the idler, wherein the crawler belt includes crawler belt links, which have respective treads that are in rolling contact with the track roller, the carrier roller and the idler during travel; and a crawler belt link grinding system for grinding the respective treads of the crawler belt links of the crawler belt.

Thus, the present invention as recited in independent claim 1 relates to a crawler belt, and specifically provides an abrasive plate to grind treads of links of the crawler belt. And the present invention as recited in independent claim 8 recites additional features of the crawler structure including a crawler belt and structures for supporting the crawler belt, such that a crawler belt grinding system is provided for grinding respective treads of the crawler belt links of the crawler belt.

With respect to independent claim 1, the Examiner has cited Atwell for the general disclosure of a crawler belt ("crawler chains" in Atwell) and pressure shoes which allow the crawler chains to effectively contact the ground. And with respect to independent claim 8, the Examiner has cited Bauer for the

disclosure of a mounting system for a crawler belt, and Smyth for the disclosure of a sprocket.

The Examiner acknowledges, however, that none of Atwell, Bauer and Smyth discloses an abrasive plate or grinding system for grinding treads of links of the crawler belt. For this reason, the Examiner has cited Hefter.

It is respectfully submitted, however, that Hefter is not properly combinable with the other cited references to be applied against the claimed present invention.

As set forth by the CAFC in In re Clay, 23 USPQ2d 1058 (1992), "Two criteria have evolved for determining whether prior art is analogous: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved."

As explained hereinabove, the claimed present invention (and Atwell, Bauer and Smyth), relate to a crawler belt and a vehicle driven by a crawler belt, whereas Hefter, by contrast, relates to a model railroad track (abstract). That is, Hefter relates to a toy train.

Clearly, therefore, Hefter is not from the same field of endeavor as the claimed present invention or the other cited

references. Therefore, in for Heftter to be applicable as prior art, Heftter must be "reasonably pertinent to the particular problem" confronted by the claimed present invention.

It is respectfully pointed out, however, that Heftter is directed to the problem of accumulated oil, dust and oxidation on a model railroad track, which impedes the flow of electricity from the track to the model toy engine that is used to power the train, because the dirty track does not provide a good surface for connection to the wheels of the model train (column 1, lines 9-15 of Heftter). More specifically, Heftter is directed to a specialty toy train car that includes a cleaning member in contact with the track, so that by running the toy train the cleaning car automatically cleans the track (as disclosed throughout Heftter).

Thus, the problem confronted by Heftter is the cleaning of a toy train track to provide a good flow of electricity between the track and the toy train.

By contrast, the problem confronted by the inventors of the claimed present invention was the uneven wear of treads of a crawler belt in real construction equipment. As explained in the "Background Art" section of the specification of the present application, when a vehicle driven by a crawler belt travels on a soft surface, dirt and/or sand easily adhere to the crawler belt.

And when dirt or sand is present between the tread of the crawler belt and the idler, the tread wears down as it slides over the idler. Since the wear of the tread by bits of dirt or sand is partial and uneven, this results in a corrugated wear pattern as shown in Fig. 13(c). Such a wear pattern, in turn, results in vibration and noise while the vehicle travels on hard surfaces, and necessitates replacement of the crawler belt.

Accordingly, the inventors of the claimed present invention were confronted with the problem of uneven wear caused by dirt or sand in real construction equipment, and not the problem of poor electrical connection caused by dust or oil or oxidation in a toy train set (as in Hefter). In this connection, moreover, it is respectfully pointed out that a toy train as in Hefter is not even operated in an environment where dirt and sand slip between the toy train wheels and toy train track wheels, and it is respectfully submitted that Hefter does not mention that the track or wheels of the toy train thereof wear unevenly. Clearly, the problem confronted by the inventors of the claimed present invention in the field of real construction equipment is entirely unrelated to the problem of poor electricity conduction in the toy train system of Hefter.

Accordingly, it is respectfully submitted that the inventors of the present invention, when confronted by the problem of

uneven wear of the treads of a crawler belt, caused by dirt or sand that slips onto the treads of the crawler belt, would have had absolutely no motivation to consult Hefter, which relates to improving electrical conductivity by removing dust, oil and oxidation from a toy train track.

It is respectfully submitted, therefore, that Hefter is clearly not "reasonably pertinent to the particular problem" with which the inventors of the present invention were involved, and it is respectfully submitted that Hefter is not properly combinable with Atwell, Bauer and Smyth to be applied against the claimed present invention, in accordance with the CAFC's well-established In re Clay test.

In view of the foregoing, it is respectfully submitted that the present invention as recited in independent claims 1 and 8, as well as each of claims 2-6 and 9-24 respectively depending therefrom, clearly patentably distinguishes over the cited prior art references under 35 USC 103.

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Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

Application No. 10/797,686  
Response to Office Action

Customer No. 01933

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned for prompt action.

Respectfully submitted,

/Douglas Holtz/

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